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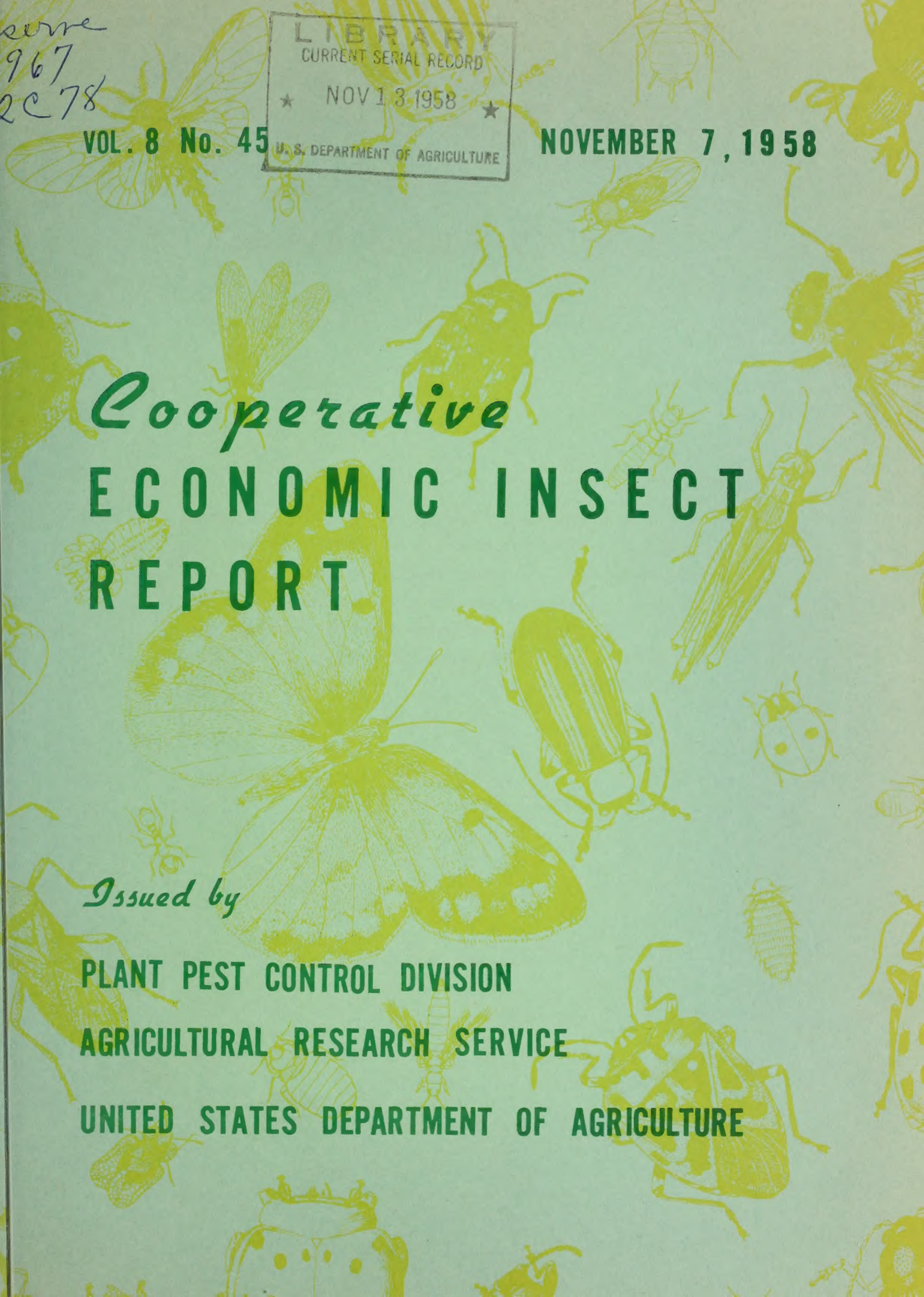

Cooperative
ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

PLANT PEST SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

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Plant Pest Survey Section
Plant Pest Control Division
Agricultural Research Service
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Volume 8 November 7, 1958 Number 45

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

SPOTTED ALFALFA APHID of concern on young alfalfa in Oklahoma. (p. 928).

IMPORTED CABBAGEWORM increased to outbreak proportions on Eastern Shore of Virginia. (p. 929).

WEEVILS damaged pines in Pennsylvania. (p. 931).

INSECT DETECTION: Southwestern corn borer found for first time in Mississippi County, Arkansas. (p. 927). Smaller European elm bark beetle new to Alameda County, California. (p. 931). Beech scale collected in Pike County, Pennsylvania, first State record. (p. 931). A mealybug (Geococcus coffeae) collected for the first time in Orange County, Florida, constitutes a new United States record. (p. 931). Giant hornet collected for first time in Shelby, Knox, Johnson and Anderson Counties, Tennessee. (p. 932).

CORRECTION. (p. 932).

SUMMARY OF INSECT CONDITIONS - ALASKA - 1957 (p. 933), 1958 (p. 934).

INSECTS not known to occur in the United States. (p. 935).

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Reports in this issue are for the week ending October 31, unless otherwise designated.

WEATHER BUREAU 30-DAY OUTLOOK

NOVEMBER 1958

The Weather Bureau's 30-day outlook for November calls for temperatures to average below seasonal normals in the East, the South and the southern Rocky Mountain area. Above normal averages are predicted for the northern half of the country from the Great Lakes westward to the Pacific Coast and also in the far Southwest. In areas not specified near normal temperatures are in prospect. Precipitation is expected to exceed normal in New England and also in the Southwest. Near normal amounts are anticipated along the east and west coasts, in the northern Rocky Mountain States and in the East Gulf region. In the remainder of the nation precipitation should be subnormal.

Weather forecast given here is based on the official 30-day "Resume and Outlook", published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D. C. Price $4.80 a year, $2.40 a half year.

WEATHER OF THE WEEK ENDING NOVEMBER 3

Cooler and drier air from central Canada pushed into the Nation the first part of the week and was the major weather factor for the week. Sunny days prevailed in the upper Great Lakes and northern Plains. Below normal temperatures were experienced except from the upper Great Lakes to the eastern slopes of the Rockies in Montana and from southeastern Arizona through the Pacific Coastal States. Little or no precipitation fell from Oklahoma northeastward to the upper Great Lakes and also from eastern Montana southwestward to southern California and southwestern Arizona. Many sections of Oklahoma have been dry and without sufficient rain for 7 weeks. Freezing temperatures were reported from the Canadian Border through most of New England, the Appalachians, the lower Ohio Valley, westward to the lower Rockies and the Sierra and Cascade Ranges. Near zero readings occurred at high elevations of the Rockies. The growing season was brought to a close in New Mexico. A low pressure area centered over southern New England spread moisture inland from the north Atlantic coast. Some snow fell each day at the higher points of New England and the northern Adirondacks. It was not until Thursday that the precipitation which had dampened much of the Northeast during the preceding week, faded from the scene and sunshine helped to boost daytime temperatures. In the South precipitation accompanied the development of a low pressure system over the Gulf of Mexico. On Wednesday, the rain at El Paso, Texas, raised the total there since January 1 to nearly 17 inches, breaking the record for moisture yielded between January and October, unshaken since 1881. The disturbance over the Gulf slowly progressed northeastward, allowing the rains to diminish over Texas while increasing over Florida. This broke the spell of fine fall weather in the central and southeastern parts of the country.

On Monday the 27th patches of low clouds and fog hovered along portions of the north Pacific coastline in the early morning followed by sunshine; elsewhere, sunshine was hindered by only partial cloudiness over much of the region west of the Rockies. This generally continued through Thursday. On Friday a weather front marked the advance of Pacific moisture across the Far Northwest, cloudiness across the Cascades and rain into western Washington, Oregon and the upper coast of California during the day. Late Friday, strong winds with gusts of 40 to 45 m.p.h., associated with another low pressure development in eastern Canada, swept across New York State. The cold air concentrated to the

WEATHER continued on page 932.

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - CALIFORNIA - Averaged 7-10 per square yard on rangeland and Russian-thistle until week ending October 31, when great numbers were observed dying in the west side of the San Joaquin Valley. (Cal. Coop. Rpt.). UTAH - Numerous about Yost, Box Elder County. (Knowlton).

EUROPEAN CORN BORER (Pyrausta nubilalis) - WISCONSIN - Fall survey showed marked decrease for 1958 as compared with 1957. The State average dropped to 15 larvae per 100 plants as compared with 36 in 1957. East central counties had highest infestations, being the only area showing an increase over the 1957 population. (Wis. Coop. Sur.).

SOUTHWESTERN CORN BORER (Zeadiatraea grandiosella) - ARKANSAS - Found for the first time in Mississippi County. All counties in the State are now infested with this species, which was first recorded in Sebastian and Franklin Counties in 1950. Subsequent new county records were as follows: 2 counties in 1951; 8 counties in 1952; 5 in 1953; 5 in 1954; 8 in 1955; 5 in 1956; 20 in 1957; and 20 in 1958. This spread has been most rapid in the heaviest corn producing areas. (Ark. Ins. Rpt., Oct. 25).

SORGHUM WEBWORM (Celama sorghiella) - ARKANSAS - Found in green heads of sorghum or suckers in field of mature sorghum in Crawford County, with up to more than 100 very small to half-grown larvae per head. (Odglen, Oct. 25).

CORN LEAF APHID (Rhopalosiphum maidis) - OKLAHOMA - Averaged 0-100 per linear foot of drill row in fields of fall-seeded barley in 11 central and north central counties. Infestations spotty within individual fields. (VanCleave). TEXAS - Found in several fields in panhandle counties surveyed for greehbug, although heavier on barley than wheat. (Daniels).

FALL ARMYWORM (Laphygma frugiperda) - GEORGIA - Heavy on oats in Spalding County, October 23. (Tippins). TEXAS - Heavy on wheat in Guadalupe County. (Turnery). Medium and attacking oats and barley in Hunt, Delta and Kaufman Counties. (Davis).

WHITE GRUBS - OKLAHOMA - Caused some damage to wheat in fields near Frederick, Tillman County (Hatfield) and severe damage to spreading junipers in an Oklahoma City nursery (Bower). Populations light in pastures in Custer County. (Hudson).

A WIREWORM - OKLAHOMA - Severely damaged 50-acre field of fall-seeded wheat near Tonkawa, Kay County, necessitating reseeding. (Henderson).

ENGLISH GRAIN APHID (Macrosiphum granarium) - DELAWARE - Common on winter rye cover crop in New Castle County. (Burbutis, Conrad).

GREENBUG (Toxoptera graminum) - TEXAS - Survey conducted October 20-24 in 19 panhandle counties showed this species present in numbers less than one per foot in Deaf Smith, Castro, Parmer, Randall, Swisher, Briscoe, Floyd and Hale Counties. However, colonies were present in these counties on the larger wheat clumps. (Daniels.). Also found in Ochiltree, Hansford and Sherman Counties but were much lighter than in counties mentioned above, being very difficult to locate. (Chada).

BROWN WHEAT MITE (Petrobia latens) - TEXAS - Average of 20-30 per foot noted in a continuous wheat field 5 miles north of Wellington, Collingsworth County. (Chada).

A NOCTUID (Probably Scotogramma trifolii) - WASHINGTON - Caused moderate damage to alfalfa in Asotin County. (Telford).

PEA APHID (Macrosiphum pisi) - DELAWARE - Common to prevalent on most alfalfa fields throughout the State. (Burbutis, Conrad). UTAH - Generally moderate in alfalfa fields in Salt Lake, Weber, Davis, Box Elder and Cache Counties. (Knowlton).

SPOTTED ALFALFA APHID (Therioaphis maculata) - OKLAHOMA - Averaged as high as 250 per sweep in some central and north central fields of young alfalfa. Considerably lighter in older alfalfa fields in same area. Controls applied to many fields of young alfalfa. (VanCleave). Averaged 15-18 per 10 sweeps in some alfalfa fields near Davidson, Tillman County. (Hatfield). UTAH - Light on alfalfa in Cache and Box Elder Counties, heavier in southern counties. (Knowlton). WASHINGTON - New light infestation on alfalfa discovered at Rogersburg, Asotin County. (Telford). ILLINOIS - Averaged 40 per 100 sweeps at Waterloo, Monroe County, and 14 per 100 sweeps at Pickneyville, Perry County. (Ill. Ins. Rpt.).

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata howardi) - DELAWARE - Common in alfalfa throughout the State and on late soybeans in Sussex County. (Burbutis, Conrad). OKLAHOMA - Averaged 0-2 per sweep in some central and north central alfalfa fields. (VanCleave).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - OKLAHOMA - Averaged 0-0.6 per sweep in some central and north central alfalfa fields (VanCleave) and 3.5-4 per sweep in alfalfa fields near Davidson, Tillman County. (Hatfield).

A TORTRICID (Sparganothis sulphurana) - VIRGINIA - Very light on soybeans in Westmoreland and other eastern counties during first half of Septmeber. Det. H. W. Capps. (Morris, Oct. 25).

GRANULATE CUTWORM (Feltia subterranea) - CALIFORNIA - Caused heavy damage to dichondra lawns in San Diego, San Diego County. (Cal. Coop. Rpt.).

A BILLBUG - OREGON - Reported in CEIR 8(41):863, has been determined as Calendra venatus confluens by R. E. Warner. (Dickason).

FRUIT INSECTS

BEET ARMYWORM (Laphygma exigua) - CALIFORNIA - Caused medium damage to citrus seedlings in Fillmore area, Ventura County. (Cal. Coop. Rpt.)

ORIENTAL FRUIT MOTH (Grapholitha molesta) - OREGON - Surveys completed for 1958 showed 347 moths trapped on 100 properties in the Willamette Valley and none trapped on 50 properties in eastern part of State and none on 90 properties in the south. (Larson).

GRAPE LEAF FOLDER (Desmia funeralis) - CALIFORNIA - Medium and damaging grape plantings in Kelseyville area, Lake County. (Cal. Coop. Rpt.).

BLACK-MARGINED APHID (Monellia costalis) - OKLAHOMA - Averaged 25-30 per 10 leaflets on Payne County pecans. (Bieberdorf). CALIFORNIA - Heavy on pecan trees in the Blythe area, Riverside County. (Cal. Coop. Rpt.).

FILBERTWORM (Melissopus latiferreanus) - OREGON - Larvae collected from chestnuts at Salem, October 14. Det. H. W. Capps. (Every).

HICKORY SHUCKWORM (Laspeyresia caryana) - TEXAS - Attacked pecans in Brazos County, with as many as 5 larvae per nut. (Randolph).

WALNUT HUSK FLY (Rhagoletis completa) - OREGON - Completed trapping surveys in western localities reveal no flies present. (Larson).

A WALNUT HUSK FLY (Rhagoletis suavis) - PENNSYLVANIA - Infested 15 percent of English walnuts examined in Snyder County. Pupation 90 percent. (Gesell, Oct. 25).

Citrus Insect Situation, Lake Alfred, Florida, Fourth Week of October - PURPLE SCALE activity increased, with further increase expected in next 2-3 weeks. FLORIDA RED SCALE activity also increased and will continue high through November. Hatching near a peak. CITRUS RED MITE showed a slight increase in activity, with further increase expected. A considerable further increase in CITRUS RUST MITE activity is expected. (Pratt, Thompson, Johnson).

TRUCK CROP INSECTS

CABBAGE LOOPER (Trichoplusia ni) - CALIFORNIA - Medium on cucumbers in Encanto area, San Diego County, and larvae light on artichoke buds in Watsonville area, Santa Cruz County. (Cal. Coop. Rpt.).

CABBAGE WEBWORM (Hellula rogatalis) - CALIFORNIA - Medium and damaged turnip plantings in Riverside area, Riverside County. (Cal. Coop. Rpt.).

CROSS-STRIPED CABBAGEWORM (Evergestis rimosalis) - MARYLAND - Moderate to abundant on cabbage at Fairland, Montgomery County, during September. (U. Md., Ent. Dept.).

IMPORTED CABBAGEWORM (Pieris rapae) - DELAWARE - Common on kale in Kent County and prevalent on cabbage in Sussex County with fresh feeding conspicuous. (Burbutis, Conrad). VIRGINIA - Increased to outbreak proportions on Eastern Shore cole crops where control measures were not followed. (Hofmaster).

DIAMONDBACK MOTH (Plutella maculipennis) - VIRGINIA - Developed to outbreak proportions on cole crops where controls were not followed on the Eastern Shore. (Hofmaster).

EUROPEAN CORN BORER (Pyrausta nubilalis) - VIRGINIA - Damaged about 25 percent of pepper crop maturing before October 7 at Painter, with similar infestations reported elsewhere on the Eastern Shore. Generally, infestation in 1958 was one of highest on record for Eastern Shore. Potatoes, sweet corn, field corn, peppers and occasionally snap beans were attacked. This pest caused more damage to sweet corn in this area in 1958 than the corn earworm. (Hofmaster).

FALL ARMYWORM (Laphygma frugiperda) - VIRGINIA - Caused some damage to snap beans on Eastern Shore recently. (Hofmaster).

TOMATO FRUITWORM (Heliothis zea) - ALABAMA - Remained prevalent on some crops in the central portion of the State, being taken from okra during the past week. (Grimes).

GREEN PEACH APHID (Myzus persicae) - VIRGINIA - Very numerous in some pepper fields on Eastern Shore, requiring treatment. (Hofmaster). CALIFORNIA - Caused medium damage to artichokes in Watsonville area, Santa Cruz County. (Cal. Coop. Rpt.).

MELON APHID (Aphis gossypii) - VIRGINIA - Heavy infestations have occurred on cucurbits on the Eastern Shore during the last several weeks. (Hofmaster).

GREEN STINK BUG (Acrosternum hilare) - TEXAS - Light to medium on sesame in Delta County. (Davis).

TARNISHED PLANT BUG (Lygus lineolaris) - DELAWARE - Abundant on turnips and carrots in Kent County. (Burbutis, Conrad).

COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - ALABAMA - Large number in squares of young cotton in Lee County, but activity greatly reduced, probably due to cool weather. (Grimes).

BOLLWORMS (Heliothis spp.) - ALABAMA - Large numbers of eggs observed on young cotton in Lee County. Unusually heavy infestation of larvae for this late in season. (Grimes).

CABBAGE LOOPER (Trichoplusia ni) - CALIFORNIA - Medium and attacked cotton fields in Calipatria area, Imperial County. (Cal. Coop. Rpt.).

COTTON LEAFWORM (Alabama argillacea) - ARKANSAS - Defoliated small field of cotton on University Experiment Farm at Fayetteville, which had not been treated all season. Due to lateness in season no treatment was applied. Feeding on small bolls became rather common after leaves and squares were consumed. (Ark. Ins. Rpt., Oct. 25).

SALT-MARSH CATERPILLAR (Estigmene acrea) - CALIFORNIA - Medium populations continued to attack cotton plantings in Westmoreland area of Imperial County. (Cal. Coop. Rpt.).

Bugs on Cotton in California - Medium to heavy populations of bugs on cotton at Cross Roads, San Bernardino County, included Euryophthalmus convivus and Chlorochroa sayi. (Cal. Coop. Rpt.).

COTTON APHID (Aphis gossypii) - ALABAMA - Honeydew causing recudtion in quality of cotton being obtained from areas of Autauga County. (Rawson).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) - WISCONSIN - Many dead larvae observed in southeastern part of State. Some apparently killed by unidentified parasite. (Wis. Coop. Sur.).

PINE WEBWORM (Tetralopha robustella) - PENNSYLVANIA - Infested one-third of 3-year old Scotch pine seedlings examined in Franklin County, with some killed. (Udine, Oct. 25).

A TORTRICID (Sparganothis sulfurana) - PENNSYLVANIA - Reared from web collected from pitch pine in Perry County August 26. Det. J. F. G. Clarke. (Drooz).

IPS BEETLES (Ips spp.) - ALABAMA - I. calligraphus, I. grandicollis and I. avulsus in scarce numbers in cut-over timbers in Lee County, with I. calligraphus the more abundant. (Guyton).

RED TURPENTINE BEETLE (*Dendroctonus valens*) - PENNSYLVANIA - Killed several white pines in Bedford County. (Drooz, Oct. 25).

SMALLER EUROPEAN ELM BARK BEETLE (*Scolytus multistriatus*) - CALIFORNIA - Heavy and caused damage to elms in Alameda. This is a first record for Alameda County. (Cal. Coop. Rpt.).

WEEVILS - PENNSYLVANIA - *Hylobius pales* and *Pissodes approximatus* easily collected under Scotch, white, red and Banks pines in Blair County, with severe damage to many trees. (Udine, Oct. 25). CALIFORNIA - Heavy populations of *Pityophthorus* sp. caused twig damage to pines in San Jose, Santa Clara County. (Cal. Coop. Rpt.).

APHIDS - VIRGINIA - *Cinara strobi* and *Pineus strobi* general but light on white pines in Blacksburg area of Montgomery County. (Morris, Fenne, Tinga).

AZALEA LACE BUG (*Stephanitis pyrioides*) - MARYLAND - Injury to azaleas conspicuous at Chevy Chase , Montogomery County. (U. Md., Ent. Dept.).

BEECH SCALE (*Cryptococcus fagi*) - PENNSYLVANIA - Collected from beech in Pike County, September 8, for first State record. Det. H. Morrison. (Drooz).

TEA SCALE (*Fiorinia theae*) - ALABAMA - Extremely heavy on camellias in Lee County. (Grimes).

A MEALYBUG (*Geococcus coffeae*) - FLORIDA - Collected on philodendron and dieffenbachia at Apopka, Orange County, September 9. Det. H. Morrison. These constitute new U. S. records. (VanPelt, Denmark).

INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - NORTH CAROLINA - *Aedes dupreei* and *Psorophora ciliata* biting in Onslow County and *A. vexans* in Hyde and Pamlico Counties. Worst infestations of *Aedes sollicitans* ever observed along coastal areas, with 63 to over 100 adults landing per minute at temperatures near 70 degrees. Conditions expected to degenerate more with over 30,000 acres returning to brackish flora due to hurricane and coastal storms in 1956. (Ashton).

SCREW-WORM (*Callitroga hominivorax*) - LOUISIANA - From September 25 to October 28 there have been 9 authenticated reports in the State, with a total of 11 animals infested. Four reports came from Caddo Parish and one each from Concordia, Claiborne, Webster and Tensas Parishes. One case in Bossier Parish, October 28. (Spink and Screw-worm Erad. Prog.).

HORN FLY (*Siphona irritans*) - OKLAHOMA - Averaged 30-1000 per head of treated and untreated mature cattle in Texas County. (Flora).

A HORSE BOT FLY (*Gasterophilus* sp.) - OKLAHOMA - Egg laying medium to heavy on horses in central and north central areas of State. (VanCleave).

PUSS CATERPILLAR (*Megalopyge opercularis*) - LOUISIANA - Probably this species much more numerous in 1958 than during past several years, with several reports of persons being severely stung by these caterpillars. At least one person was hospitalized. (Spink).

EAR TICK (*Otobius megnini*) - OKLAHOMA - Averaged 0-34 per ear on 167 head of yearling cattle in Texas County, 0-70 in Canadian County. (Flora).

STORED-PRODUCT INSECTS

Stored-grain Insects in Texas - Heavy infestations of *Sitophilus oryza*, *Sitotroga cerealella*, *Tribolium confusum*, *Laemophloeus pusillus*, *Oryzaephilus surinamensis* and fungus beetles were found in 5,000 bushels of stored grain sorghum in Guadalupe County. (Turney).

BENEFICIAL INSECTS

PREDATORS - OKLAHOMA - *Hippodamia convergens* averaged 0.4-1 per sweep in some central and north central alfalfa fields, *Nabis* sp. 0.2-1.5 and lacewings 0.4-1.5. (VanCleave). TEXAS - Lady beetles were found in many fields of 19 panhandle counties surveyed for greenbug. (Daniels).

MISCELLANEOUS INSECTS

OLD-HOUSE BORER (*Hylotrupes bajalus*) - PENNSYLVANIA - Caused severe damage to a small building in Bedford County. (Drooz, Oct. 25).

BLACK CARPENTER ANT (*Camponotus herculeanus pennsylvanicus*) - NORTH CAROLINA - Swarming in homes in Nash and Wake Counties. (Wray).

GIANT HORNET (*Vespa crabro germana*) - TENNESSEE - Reported from Shelby, Knox, Johnson and Anderson Counties as new county records. (Mullett).

AN EARTHWORM MITE (*Fuscuropoda agitans*) - NORTH CAROLINA - Infestation in worm beds in Franklin County. (Farrier).

CORRECTION

CEIR 8(43):893 - TOMATO HORNWORM should be changed to read TOMATO FRUITWORM.

WEATHER OF THE WEEK - Continued

north of the Great Lakes impeded the northerly spread of rain into the northeast on Saturday. The disturbance that earlier in the week was over the Gulf of Mexico, moved across Georgia and continued up the Atlantic coast, producing cloudy, rainy weather in the Northeast over the weekend. Rain turned to snow at higher elevations with snowfall up to 9 inches near Altoona, Pennsylvania. Elsewhere in the Nation, with few exceptions, fair skies were the dominant feature supported by a high pressure system centered over Texas and northern Utah. In the Pacific Northwest, heavy clouds gave precipitation south to northern California and inland to the west slopes of the northern Rockies. (Summary supplied by U. S. Weather Bureau.)

SUMMARY OF INSECT CONDITIONS - 1957

ALASKA

Prepared by Richard H. Washburn

Forage Crop Insects: MEADOW SPITTLEBUG (Philaenus leucophthalmus) was numerous in the Juneau, Ketchikan and Sitka areas in the southeastern part of the Territory. A caterpillar resembling SOYBEAN POD BORER (Grapholitha glycinivorella) heavily infested lupine seed pods.

Small Fruit Insects: TWO-SPOTTED SPIDER MITE (Tetranychus telarius) was serious on strawberries. STRAWBERRY ROOT WEEVILS damaged strawberries in the Anchorage area and MEADOW SPITTLEBUG was numerous on raspberries and strawberries in southeastern sections.

Vegetable Insects: TURNIP MAGGOT (Hylemya floralis) was severe throughout the growing season in turnips, radishes, cauliflower, broccoli and cabbage in all areas. SEED-CORN MAGGOT (H. cilicrura) occurred only in the Matanuska Valley area and ONION MAGGOT (H. antiqua) in green onions near Palmer. CUTWORMS were serious on Gravina Island near Ketchikan in the southeast and were lightest in years in other areas. A THRIPS (Taeniothrips orionis) severely damaged cabbage and lettuce on the Kenai Peninsula. WIREWORMS (Ctenicera spp.) damaged potatoes in the Tanana Valley and limited areas of the Matanuska Valley. CABBAGE APHID (Brevicoryne brassicae) was imported on cabbage plants from the States and severely injured cabbage in the Tanana Valley. BEAN APHID (Aphis fabae) was numerous on beans. A LEAFHOPPER (Empoasca filamenta) was numerous on potatoes in river bank areas near Palmer.

Ornamental Insects: A SPEAR-MARKED BLACK MOTH (Eulype hastata) was very numerous , rolling birch leaves over a large area near Fairbanks. A BIRCH APHID (Euceraphis sp.) and other APHIDS heavily infested birch and cottonwood over the interior of the Territory. Columbine, delphinium and calendula were also heavily infested. A SPRUCE GALL APHID (Chermes sp.) was numerous on white spruce in the Tanana Valley. GLADIOLUS THRIPS (Taeniothrips simplex) damaged gladiolus in all areas. An unidentified MITE was numerous on white spruce in the Anchorage area.

Greenhouse Insects: A GREENHOUSE WHITEFLY (Trialeurodes sp.) was common in greenhouses in the Tanana and Matanuska Valleys on fuchsia. APHIDS were severe on peppers, eggplant and occasionally on cucumbers. TWO-SPOTTED SPIDER MITE (Tetranychus telarius) became established in many greenhouses in Alaska. THRIPS consumed enough cucumber pollen to interfere with pollination.

Livestock Insects: MOSQUITOES (Culiseta spp. and Aedes spp.) annoyed dairy cattle in pastures, as did BLACK FLIES (Simulium spp.) and SNIPE FLIES. A LITTLE RED LOUSE was troublesome on calves. POULTRY MITES, especially Dermanyssus spp., were serious on flocks near Palmer.

Household Insects: CLOVER MITE (Bryobia praetiosa complex) was a nuisance in farm homes in the Matanuska Valley as well as homes near Anchorage. BROWN-BANDED ROACH (Supella supellectilium) was imported with household goods from the States. GERMAN ROACH (Blattella germanica) remained the commonest species in homes and buildings. VINEGAR FLIES (Drosophila spp.) were numerous enough to be annoying for the first time in several years. SILVERFISH (Lepisma saccharina) and FIREBRAT (Thermobia domestica) were numerous in old buildings using steam heat.

SUMMARY OF INSECT CONDITIONS - 1958

ALASKA

Prepared by Richard H. Washburn

Forage Crop Insects: MEADOW SPITTLEBUG (*Philaenus leucophthalmus*) was numerous in the southeast portion of the Territory. RED-BACKED CUTWORM (*Euxoa ochrogaster*) severely damaged several hundred acres of grain near Palmer. CATERPILLARS infested lupine seed pods and oxytropus pods. Unidentified DIPTEROUS larvae damaged red clover heads in the Matanuska Valley. An APHID (*Hyalopterus atriplicis*), a transmitter of the yellow dwarf viruses group, heavily infested lambsquarters in the interior for the second sucessive year. COLLEMBOLA and LEAFHOPPERS heavily infested a grass nursery at a Matanuska farm.

Small Fruit Insects: STRAWBERRY ROOT WEEVIL (*Brachyrhinus ovatus*) severely damaged a strawberry patch in Anchorage. This weevil was probably introduced from the States with the plants. APHIDS were numerous on everbearing strawberries near Palmer and BLACK ARMY CUTWORM (*Actebia fennica*) severely damaged strawberries and rhubarb in the Knik and Soldotna areas. A WEEVIL (*Lepidophorus lineaticollis*) damaged strawberry fruits near Wasilla.

Vegetable Insects: Cutworms were the most destructive in several years, seriously damaging all garden vegetables except potatoes. The main species involved were RED-BACKED CUTWORM (*Euxoa ochrogaster*) and BLACK ARMY CUTWORM (*Actebia fennica*). TURNIP MAGGOT (*Hylemya floralis*) was serious in most cruciferous crops and SEED-CORN MAGGOT (*H. cilicrura*) was active in increased incidence of black-leg of potatoes in the Matanuska Valley. WIREWORMS were not as severe in potatoes as in 1957. A LEAFHOPPER (*Empoasca filamenta*) was not as numerous on potatoes as in 1957 though still present in the Palmer area.

Ornamental Insects: A BIRCH APHID (*Euceraphis betulae*) heavily infested white birch throughout Alaska, being especially severe in specimen trees. A STINK BUG (*Elasmostethus interstinctus*) was very numerous on cottonwood.

Greenhouse Insects: CUTWORMS defoliated peppers and burrowed in tomatoes in greenhouses in the Palmer area. A WHITEFLY (*Trialeurodes* sp.) was common on fuchsia in a florist greenhouse near Palmer. APHIDS were common in most greenhouses, especially on egg plant and peppers.

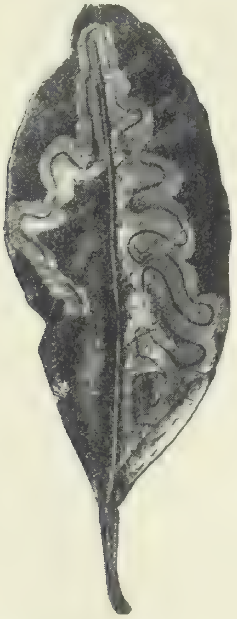
Household Insects: VESPID WASPS were extremely numerous and annoying, with many nests in homes and outbuildings. CLOTHES MOTHS (*Tinea* sp. and *Tineola* sp.) were common in homes. CLOVER MITE (*Bryobia praetiosa* complex) was numerous in homes in the Anchorage area.

INSECTS NOT KNOWN TO OCCUR IN THE UNITED STATES

CITRUS LEAF MINER (Phyllocnistis citrella Stainton)

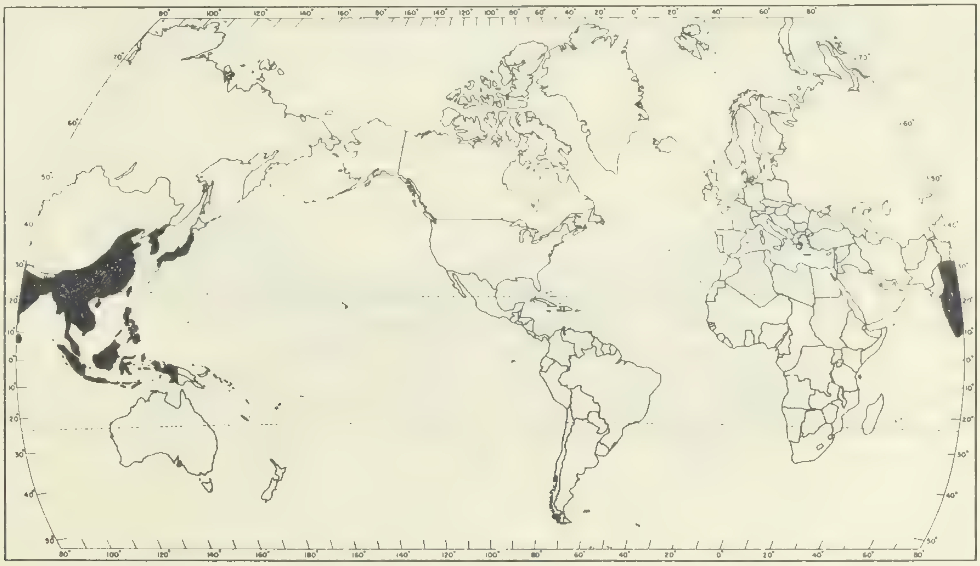
Economic Importance: Citrus plants are sometimes seriously hampered by attacks of Phyllocnistis citrellla in citrus-growing areas of Asia, especially the young tender shoots and leaves of plantation plants and young nursery stock. Injury is caused by larval mining which results in the killing of large amounts of tissue. When the mines become excessive in number, growth of the plant stops, though an infestation seldom causes the death of the tree. The mines have been reported as points of citrus canker infection in some areas where the disease occurs.

Distribution: Occurs throughout tropical Asia; being recorded in India, Ceylon, East Pakistan, Burma, Thailand, Malaya, Indonesia, Indochina, China, Korea, Japan, Formosa, Netherlands New Guinea, Philippines, Loochoo Ids., Mariana Ids. and western Caroline Ids. Records in the literature from Cape Town, South Africa and the Northern Territory of Australia seem of doubtful accuracy since subsequent confirmatory records have not been found.



Characteristic Mines in Leaf

Hosts: Citrus is the principal host. Also attacks baelfruit, curryleaftree and Arabian jasmine in India and kumquat in Japan.

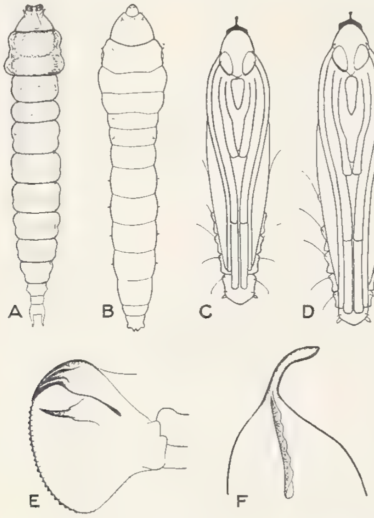


General Distribution of Citrus Leaf Miner

(Lyonetiidae, Lepidoptera)

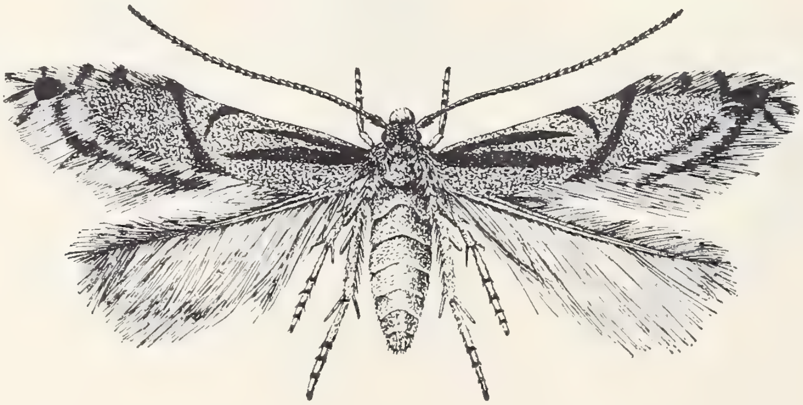
No. 65 of Series

Life History and Habits: The eggs are laid singly, 2 or 3 per leaf, on either surface but usually on the underside near the midrib. During the summer, hatching takes place in about 3 days. The young larvae enter the leaf tissue and feed as leaf miners without coming to the surface during their development which takes 5 or 6 days. Typical injury consists of irregularly twisted galleries containing a brownish excrement. The epidermis over the galleries appears as a silvery film. Most of the mines are found on the upper surface of the leaf in the more humid and tropical areas. When larval feeding ceases, the epidermis of the leaf and opposing tissues are forced apart by the rolling and arching action of the larva thus forming a pupal chamber. The portion of the cocoon visible has a distinct orange cast. Emergence takes place in about 6 days, usually during the early morning hours. The adults are nocturnal and seldom seen. Populations are lowest from December to February and greatest from March to May and September to November in the Punjab of India. This species passes the winter solely as an adult. Approximately 6 generations a year are produced in southern Japan.



Larval and Pupal Forms of *Phyllocnistis citrella* - (A)Mature Larva, (B)Prepupa, (C)Male Pupa, (D)Female Pupa, (E)Mandible of Larva, (F)Pupal Head Prong

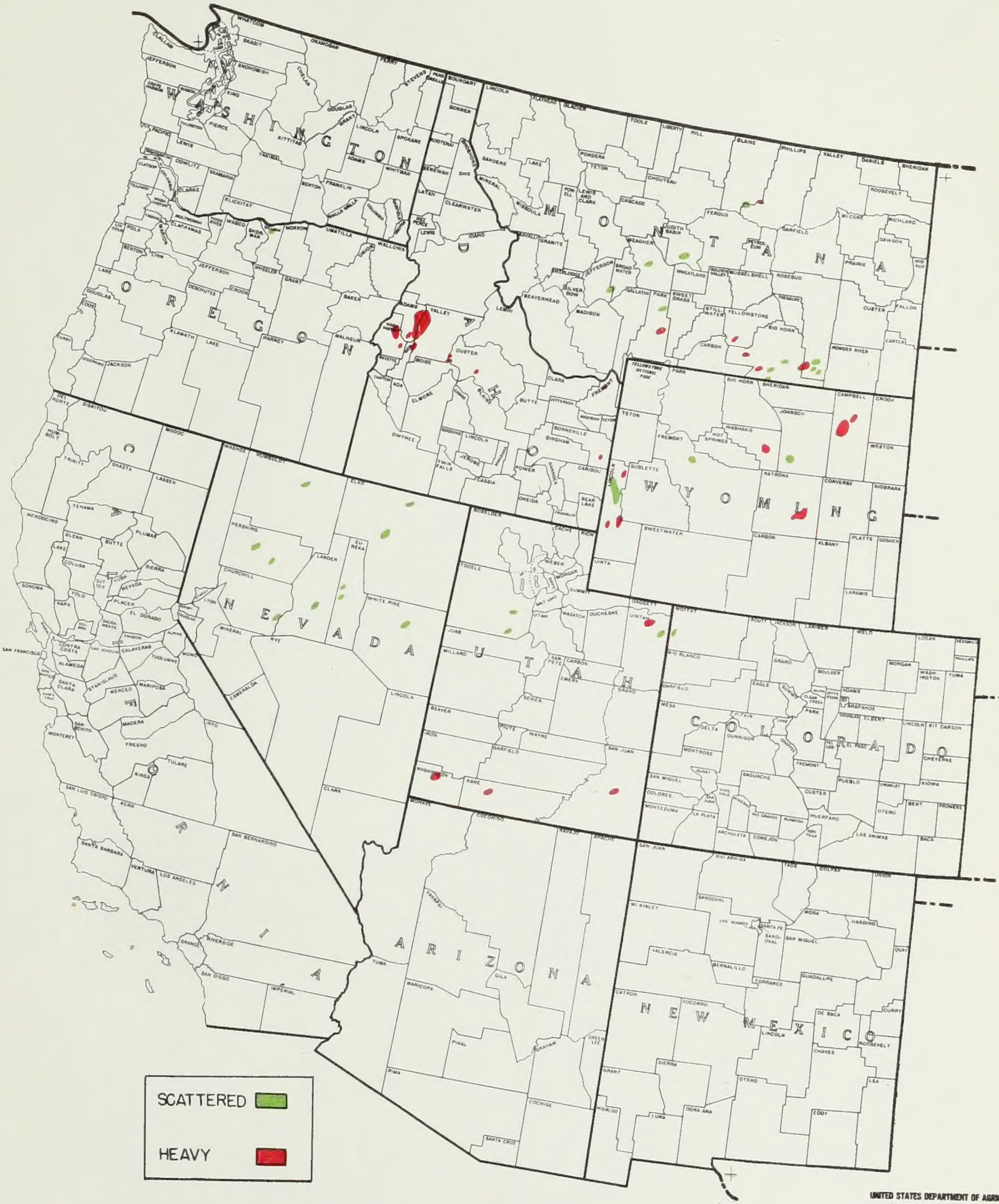
Description: The adults are very small, silvery-white with pale-yellow markings, and a black spot at the tip of each forewing. They are seldom noticed with the naked eye. Eggs are about 0.27 mm. in length, flat, and without sculpturing or covering. The mature larva is cylindrical, dull-yellow in color. The larval head is small. It has a pair of antennae terminating in two rounded lobes and rudimentary mouth parts with the exception of the spinnarets. The earlier larval stages are pale greenish-yellow and have modified mothparts for sap-feeding. The later larval stages are similar in form, though the head and thoracic segments of the earlier stages are proportionately larger. The pupa is pale-yellow inside the cocoon, and has a stout curved prong on its head and heavy spines on the abdomen which are used in emergence. (Prepared in Plant Pest Survey Section in cooperation with other ARS agencies and the U. S. N. M.) CEIR 8(45) 11-7-58



Adult Female of *Phyllocnistis citrella* (Enlarged 25 times)

Figures (except map) from Clausen, C. P. 1931. U. S. Dept. Agr. Tech. Bul. 252, 13 pp.

MORMON CRICKET ADULT SURVEY - FALL 1958



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